## Claims

- 1. An arrangement for the analysis of respiratory gases to and from a patient connected to a respirator, which arrangement comprises a holder unit (6) for a removably fitted water trap (4) that is adapted to receive said respiratory gases, and which arrangement has a connection that is adapted to lead liquid-free gas from the water trap (4) to an analysing instrument (8) to which analysing instrument (8) the holder unit (6) is connected characterized in that said holder unit (6) is provided with an oxygen gas measuring unit (14) for measuring oxygen gas in the liquid-free gas, and in that said oxygen gas measuring unit (14) is a fuel cell which is removably attached to said holder unit (6) and has a connection that is adapted to receive the liquid-free gas.
- 2. An arrangement according to claim 1 **characterized in that** said arrangement comprises a connection that is adapted to transport the liquid-free gas from the analysing instrument (8) to the fuel cell.
- 3. An arrangement according to claim 1 **characterized in that** said arrangement comprises a connection that is adapted to transport the liquid-free gas from the water trap (4) to the fuel cell.
- 4. An arrangement according to any of the claims 1-3 **characterized in that** the connection that is adapted to transport the liquid-free gas to the fuel cell is via the holder unit (6).
- 5. An arrangement according to any of claims 1-4 characterized in that said arrangement comprises a connection that is adapted to transport the liquid-free gas to the analysing instrument (8).

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- 6. An arrangement according to claim 5 characterized in that the connection that is adapted to transport the liquid-free gas to the analysing instrument (8) is via the holder unit (6).
- 7. An arrangement according to any of claims 1-6 **characterized in that** said fuel cell is provided with means adapted to perform signal communication with the analysing instrument (8) and that the signal communication includes information about the oxygen gas content in the liquid-free gas and/or information about the status of the fuel cell.
- 8. An arrangement according to any of claims 1-7 **characterized in that** said fuel cell is provided with at least one contact and that the holder unit (6) is provided with at least one corresponding contact (38), that enables said signal communication.
- 9. An arrangement according to any of claims 1-8 **characterized in that** said holder unit (6) has a first indentation (22) adapted to house the water trap (4) and a second indentation (32) adapted to house the fuel cell behind the water trap (4), so that the fuel cell is easily accessible from the outside of the analysing instrument (8).
- 10. An arrangement according to claim 9 characterized in that said holder unit (6) is provided with interlocking means in the second indentation (32) that correspond to interlocking means on the fuel cell.
- 11. An arrangement according to claim 10 **characterized in that** said interlocking means in the second indentation (32) of the holder unit (6) are at least one groove (33) and that said interlocking means on the fuel cell are at least one protruding edge (41).
- 12. A fuel cell adapted to measure oxygen gas characterized in that it is removably attachable to the holder unit (6) in the arrangement according to any of claims 1-11.

- 13. A fuel cell according to claim 12 **characterized in that** said fuel cell has a connection that is adapted to receive gas and/or a connection that is adapted to emit gas.
- 14. A fuel cell according to any of claims 12-13 characterized in that said fuel cell is provided with means adapted to perform signal communication.
- 15. A fuel cell according to any of claims 12-14 **characterized in that** said fuel cell is provided with at least one contact that corresponds with at least one contact (38) in the holder unit (6), that enables said signal communication.
- 16. A fuel cell according to any of claims 12-15 **characterized in that** said fuel cell is provided with interlocking means that correspond to interlocking means in the holder unit (6).
- 17. A fuel cell according to claim 16 **characterized in that** said interlocking means on the fuel cell are at least one protruding edge (41) that correspond to at least one groove (33) in the holder unit (6).